CLAIMS

1. A method of correcting signal differences between at least two adjacent parts of a radiation-sensitive sensor, each said adjacent parts containing a contiguous set of radiation-sensitive sites read out through a respective separate electronic processing means, said contiguous sets being collinear, said method comprising the steps of:

increasing the perimeter of the border between said adjacent parts of the sensor read out through separate electronic processing means; and

using at least one set of adjacent values from each said adjacent parts to compute a correction to be applied to a signal read out of at least one of said adjacent parts.

2. The method of claim 1, wherein said step of increasing the perimeter comprises shifting said radiation sensitive sites so that at least one of said sites located at said border between said adjacent parts will be read out though a different one of said separate electronic processing means than prior to said shift.

3. The method of claim 1, wherein said step of increasing the perimeter comprises:

shifting a first line so that N sites belonging to a first of said adjacent parts are enabled to be read out through a second one of said separate electronic processing mean;

reading out said shifted first line through said respective separate means;

shifting a second line so that N sites belonging to a second of said adjacent parts are enabled to be read out through the first one of said

separate electronic processing means; and

reading out said shifted second line through said respective separate means.

4. The method of claim 3, wherein each said first and second lines has N dummy pixels at each end thereof.

5. The method of claim 1, wherein said computing comprises:

comparing each line of pixels to the lines above and below it at at least one site of each said adjacent parts that was read out through a different one of said separate electronic processing means;

estimating the offset between the values of said adjacent parts of said line; and

adding said estimated offset to at least one pixel of one of said adjacent parts of said line.

6. The method of claim 5, wherein said step of adding comprises:

adding an averaged estimated offset of a plurality of lines to at least one pixel

of one of said adjacent parts of said line.

7. The method of claim 4, additionally comprising, after each said reading out steps, the step of aligning the two parts of each said read out lines.

8. The method of claim 7, wherein said aligning comprises using at least one FIFO buffer.

9. The method of claim 8, wherein said FIFO buffer is multiplexed between said respective electronic processing means.

10. The method of claim 1, wherein the step of increasing the perimeter comprises

using an especially designed sensor having a tooth-like border between said adjacent parts thereof.

11. The method of claim 10, wherein said at least two adjacent parts comprise four adjacent parts, each part containing a contiguous set of radiation-sensitive sites read out through a respective separate electronic processing mean; and

wherein said four adjacent parts comprise two pairs of adjacent parts, said pairs divided by said tooth-like border.

12. The method of claim 11, additionally comprising, for each said pairs, the steps of:

shifting a first line so that N sites belonging to a first of said adjacent parts are enabled to be read out through a second one of said separate electronic processing mean;

reading out said shifted first line through said respective separate means;

shifting a second line so that N sites belonging to a second of said adjacent parts are enabled to be read out through the first one of said separate electronic processing means; and

reading out said shifted second line through said respective separate means.

13. The method of claim 12, wherein each said first and second lines has N dummy pixels at each end thereof.

14. The method of claim 11, wherein said computing comprises, for each said pairs:

comparing each line of pixels to the lines above and below it at at least one site of each said adjacent parts that was read out through a different one of said separate electronic processing means;

estimating the offset between the values of said adjacent parts of said line; and

adding said estimated offset to at least one pixel of one of said adjacent parts of said line.

15. The method of claim 14, additionally comprising rotating the thus corrected lines 90° and repeating said step of computing.

16. Apparatus for correcting signal differences between at least two adjacent parts of a radiation-sensitive sensor, comprising:

a radiation sensitive sensor having at least two adjacent parts, each said parts containing a contiguous set of radiation sensitive sites, said contiguous sets being collinear, said sensor additionally comprising separate electronic processing means for reading out said respective contiguous sets;

means for storing at least two sets of signals output from said at least two processing means;

means for computing a desired correction between said at least two stored sets of signals; and

means for correcting at least one of said sets of signals according to said computed desired correction.

17. The apparatus of claim 16, wherein said means for storing comprise means for aligning said at least two sets of signals output from said at least two processing means.

18. The apparatus of claim 17, wherein said means for aligning comprise at least one FIFO buffer.

19. The apparatus of claim 18, additionally comprising means for multiplexing said FIFO buffer between said respective electronic processing means.

20. The apparatus of claim 16, wherein said collinear contiguous sets of pixels from said adjacent parts contain at least one dummy pixel on each end of each line thereof.

21. The apparatus of claim 16, wherein said sensor has a tooth-like border between said adjacent parts thereof.

22. The apparatus of claim 21, wherein said at least two adjacent parts comprise four adjacent parts, each part containing a contiguous set of radiation-sensitive sites read out through a respective separate electronic processing mean; and

wherein said four adjacent parts comprise two pairs of adjacent parts, said pairs divided by said tooth-like border.

23. The apparatus of claim 22, wherein said means for computing comprises means for rotating said signal sets.